

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-6, 8-13, 15 and 16 remain pending, wherein claims 1, 8-13 and 15 have been amended, and claims 7 and 14 have been canceled. Specifically, claim 1 has been amended to include the subject matter recited in claims 7 and 14. Claim 15 has been amended into independent form to include the elements recited in claims 1 and 7, from which claim 15 depended.

Initially, Applicants note with appreciation the Examiner's acknowledgment of Applicants' claim for foreign priority and that all of the certified copies of the priority documents have been received.

Applicants also appreciate the Examiner's consideration of the Information Disclosure Statements filed on May 6, 2002, September 3, 2002, and January 10, 2003.

In the first paragraph of the Office Action claims 1 and 7 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,083,599 to *Hirayama et al.* ("*Hirayama*"). In the second paragraph of the Office Action claim 16 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Hirayama* in view of U.S. Patent No. 6,447,936 to *Futamoto* ("*Futamoto*") and the article "Effects of Magnetic Layer Thickness on Negative Nucleation Field and Cr Segregation Behavior in CoCrPt/Ti Perpendicular Media" by *Lee et al.* ("*Lee*"). In the third paragraph of the Office Action claims 2-6 and 8-15 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Hirayama* in view of the article "Composite Perpendicular Recording Medium Consisting of CoCrPt With Large H_k and CoCr With Positive Inter-particle Inner Action"

by *Sonobe et al.* ("*Sonobe*") in view of *Lee*. These grounds of rejection are respectfully traversed.

Filed concurrently herewith is a Declaration by the Inventors Under 37 C.F.R. §1.132 declaring that the subject matter described in the article "Effects of Magnetic Layer Thickness on Negative Nucleation Field and Cr Segregation Behavior in CoCrPt/Ti Perpendicular Media" by Lee et al. describes Applicants' own work. Accordingly, it is respectfully submitted that this article is not prior art against the present application.

Applicants claim 1 is patentably distinguishable over *Hirayama*, *Sonobe*, *Futamoto* and *Lee*, either alone or in combination because these documents do not disclose or suggest all of the elements recited in Applicants' claim 1. Specifically, these documents, either alone or in combination, do not disclose or suggest that "the perpendicular magnetic recording medium further comprises Ta, Nb, or Ta + Nb in an amount of less than 4 atomic %" as recited in Applicants' claim 1. This subject matter was incorporated into Applicants' claim 1 from Applicants' claim 14. To reject Applicants' claim 14 the Office Action relies upon a combination of *Hirayama*, *Sonobe* and *Lee*. However, the Office Action does not specifically address what was recited in claim 14. Accordingly, it is respectfully submitted that the combination of *Hirayama*, *Sonobe* and *Lee* does not disclose or suggest that "the perpendicular magnetic recording layer further comprises Ta, Nb, or Ta + Nb in an amount of less than 4 atomic %" as recited in Applicants claim 1. Hence, the combination of *Hirayama*, *Sonobe* and *Lee* cannot render Applicants' claim 1 unpatentable.

Claims 2-6 and 16 variously depend from Applicants' claim 1, and are, therefore, patentably distinguishable over *Hirayama*, *Futamoto*, *Sonobe* and *Lee*, either alone or in combination, for at least those reasons stated above with regard to Applicants' claim 1.

Claim 15 recites similar subject matter to that discussed above with regard to Applicants' claim 1, and hence, this claim is patentably distinguishable over *Hirayama*, *Sonobe*, *Futamoto* and *Lee* for similar reasons to those discussed above with regard to Applicants' claim 1. Claims 8-13 variously depend from claim 15, and hence, are patentably distinguishable over *Hirayama*, *Futamoto*, *Sonobe* and *Lee*, either alone or in combination, for at least those reasons stated above with regard to Applicants' claim 15.


For at least those reasons stated above it is respectfully requested that the obviousness rejections of Applicants' claims 1-6, 8-13, 15 and 16 be withdrawn.

All outstanding objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this response, or the application in general, the Examiner is encouraged to contact the undersigned at 703-838-6578.

Respectfully submitted,

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Date: 12/23/03

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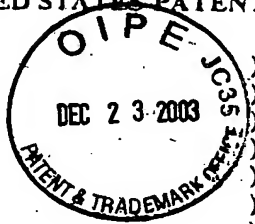
In re Patent Application of

Kyung-jin LEE et al.

Application No.: 10/038,604

Filed: January 8, 2002

For: PERPENDICULAR MAGNETIC THIN
FILM FOR ULTRAHIGH DENSITY
RECORDING



Group Art Unit: 1773

Examiner: L. Falasco

Confirmation No.: 7771

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DECLARATION BY INVENTOR UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1, Kyung-jin Lee, Taek-Dong Lee, In-Seon Lee and Min-sik Hwang hereby state as follows:

1. I am a co-inventors of the above-identified U.S. patent application.
2. The article "Effects of Magnetic Layer Thickness on Negative Nucleation Field and Cr Segregation Behavior in CoCrPt/Ti Perpendicular Media" by Taek-Dong Lee, Min-sig Hwang, and Kyung-jin Lee ("Lee Article") describes my work which is disclosed in the above-identified U.S. patent application.

3. The inventorship of this application is correct in that the Lee Article discloses subject matter which was derived from the inventors of the above-identified application.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: Sep. 31, 2003

Kyung-jin Lee

Date: Oct. 20, 2003

Taek-Dong Lee

Date: Dec 23, 2003

In-Seon Lee

Date: Nov. 20, 2003

Min-sik Hwang